

ABSTRACT

A fluid separation system includes a tank with a storage chamber for retaining floating and non-floating particulates. The tank includes a baffle for retaining floating particulates within the storage chamber and for directing flow out of the storage chamber. The tank also includes a bypass with an inlet flow control zone and an outlet flow control zone. The flow control zones are separated by a weir sized and positioned to regulate the fluid flow through a baffle port into the storage chamber. The weir also provides control of the flow rate at which incoming fluid is diverted directly through the bypass to the tank outlet rather than into the storage chamber. The baffle and/or the weir may be curved, and the baffle may include a complex curve, to aid in the smoothing of the fluid flow within the storage chamber to improve particulate separation.